

Remarks

Applicant respectfully traverse the Examiner's rejection of the claims as being anticipated by Ranta under 35 U.S.C. 102(e).

Ranta (US 6,832,093) discloses a method for restricting the operation of a radio device within a certain area, according to two different embodiments.

In the first embodiment, a number of beacon base stations are placed in the "restricted area". Each beacon base station is, as the phrase suggests, a base station like any other one of the cellular radio system, apart from the fact that it allows only restricted operation to the mobile terminals within its cell (col. 2, 1.35-40).

More precisely, the beacon base station belongs to the cellular radio system (col. 3, 1.40-42) and is arranged for being selected (or reselected) by a mobile terminal entering the restricted area (col. 4, 1.59 – col. 5, 13 and col. 5, 1.21-28). Then, the mobile terminal can attempt an access directly on a channel provided by the beacon base station (col. 6, 1.7 – 10 and 1.11-15). The beacon base station controls the channel according to the envisaged restriction (e.g. it refrains from granting dedicated channels: col. 6, 1.11-15). Similarly, the beacon base station can reject the call setup coming from the network, in order to avoid mobile-terminating calls (col. 6, 1.34-37).

Therefore, it is clear from the teaching of the first Ranta's embodiment that the beacon base station is a base station of the cellular radio system like any other base station (this is also confirmed by the fact that a beacon base station may operate as a regular base station most of the time: col. 6, 1.38-45), which further restricts the calls and call setups of mobile terminals having an active radio link with it.

This is especially clear in the example described with reference to Fig. 3, where a call request and a SMS are transmitted to the terminal 303 directly from the beacon base station 302 (steps 307-308). The regular base station 301 is not involved in the call request or in the SMS transmission as long as the terminal 303 is within the restricted area. No signaling sequence is executed via the regular base station 301. Moreover, no service restriction indication is transmitted from the terminal 303 to the cellular radio system, since the restriction is controlled by the beacon base station 302.

In the second embodiment, a restricted area is defined by a set of coordinates transmitted by regular base stations close to this area. A terminal location system determines the location of a terminal and it is checked whether the terminal is within the restricted area based on the defined set of coordinates and the determined location. If the terminal is within the restricted area, operational restrictions apply (col. 2, 1.40-51). No beacon is used in this second embodiment. Moreover, only coordinates of a restricted area, and not a service restriction indication in respect of terminals situated in the restricted area, are transmitted in this case. Similarly, only an indication that the terminal has entered the restricted area, and not a service restriction indication received from a beacon, can be transmitted to the cellular system from the terminal.

It is true that Ranta also discloses that the first and second embodiments could be combined. But this only means that beacon base stations could be used and, at the same time, coordinates could be transmitted (col. 9, 1.54-56). It does not change the fact that no service restriction indication in respect of terminals situated in the restricted area is transmitted to the terminal from a beacon and, a fortiori, retransmitted to the cellular system from the terminal.

Claim 1 of the present application recites a method of controlling the availability of a cellular radiocommunication service. In this method, an independent beacon is arranged for broadcasting, in a protected zone, a radio signal carrying, in particular, a service restriction indication in respect of terminals situated in the protected zone. This indication is stored in a terminal picking up the radio signal. And a signaling sequence is executed in a call setup procedure between a cellular system and the terminal, said signaling sequence including transmitting the service restriction indication from the terminal to the cellular system.

Thus, in the present invention, the beacon is a broadcasting means independent from the cellular system. For executing a call setup, the terminal situated in the protected zone uses the service restriction indication received from the beacon. But, the call setup is executed in cooperation with the cellular system (and not with the beacon), since only the latter can provide the terminal with the necessary communication resources capable of carrying the service.

As explained before, the beacon base station of Ranta is a base station of the cellular network that can provide communication resources to a terminal having an active radio link with it. It is part of the cellular network and not independent from it. For this reason, a call setup is executed with said beacon base station. For the same reason, no signaling sequence including transmitting a service restriction indication as claimed in claim 1 is executed with the cellular network, since the beacon base station executes the call setup by itself.

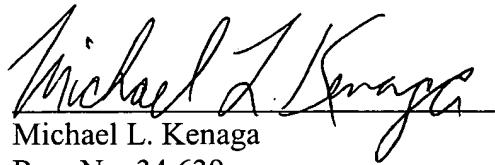
The beacon of the present invention is thus much more simple than the beacon base station of Ranta, as indicated in the present application (see paragraph [0012]).

The use of the Ranta's "coordinates" embodiment in combination with the "beacon base station", one does not change the situation in this respect.

Therefore, the subject-matter of claim 1 is believed new and non-obvious in view of Ranta. The same applies to the independent claims 6 and 7. The other claims are acceptable as well, in particular since they depend directly or indirectly on an acceptable independent claim.

In view of the foregoing comments, Applicant respectfully submits that the Examiner's rejection has been overcome. The Examiner's reconsideration is requested and to find the claims allowable over the prior art of record.

Respectfully submitted,



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